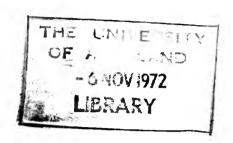


# NEWSLETTER

Operational Research Society of New Zealand (Inc.)



1972, OCTOBER

VOL. 9 NO. 1

NINTH ANNUAL REPORT



### Operational Research Society of New Zealand (Inc.)

#### SPECIAL MEETING & ANNUAL GENERAL MEETING

#### NOTICE

A Special Meeting and the 9th Annual General Meeting will be held as follows:

DATE: 1972 November 14, Tuesday

TIME: 7.30 p.m.

PLACE: Wakefield House, 90 The Terrace, Wellington

#### A. ADDRESS

"Practising Operational Research in New Zealand".

Mr. Graeme Hollyman, Management Services Manager for Unilever (N.Z.), will deliver a short address on the above topic. The address will be followed by a brief period for discussion.

Operational research with its substantial development costs may not always be justified by the level of benefits derived in the smaller scale of enterprise common in N.Z. What, then in practice is the role of o.r. on the N.Z. scene?

(This address has been arranged by the Wellington Branch)

#### B. SPECIAL MEETING

It is proposed that Clause 5(e) of the Constitution (cheque signatures ) be amended as follows (amendment approved by Council 72 Oct. 5):

delete the final full stop(.)

add

"except that for Branch accounts, any two of four members approved by Council shall be signatories."

There is at present no provision in the Constitution for branches to have accounts and the Incorporated Societies Act requires that a Society's constitution must provide for, inter alia, 'The control and investment of the funds of the society - i.e., banking operation on society's account:'.

The amendment is required to give effect to the following policy for branch finance which was generally acceptable to the branch committees and was adopted by Council on 72 March 8:

- " \*1. Each branch to have its own bank account at least 2 signatories out of 3† to sign; the Signatories to be appointed by Council.
  - 2. RECEIPTS a. Allocation by Council on an annual basis e.g. \$20 p.a. plus \$1 p.a. per branch member.
    - b. Numbered receipts to be issued for receipts from functions.

- c. Minor receipts e.g. supper money blanket receipt to be issued to branch secretary.
- 3. PAYMENTS a. Petty cash account to be operated by Treasurer.
  - b. All expenditure within limits of branch bank balance at time of decision to proceed, no Council Control.
  - c. All commitments to spend more money than currently held in branch bank account must have Council approval, because it involves a guarantee from the whole society.
- 4. <u>BUDGET</u> Annual budget must be prepared for Council as a condition for 2(a).
- 5. AUDITING Branch receipt book, bank statements, petty cash account, and approved invoices to be submitted for auditing.

(sgd.) A.H. Milkop Hon. Treasurer.

#### Notes

- \* Constitutional amendment required.
- \* It is Council's intention that normally the Branch Committee's nominees for signatories will be the ones, and only ones, appointed."
- † altered in proposed Constitutional amendment.

#### **AGENDA**

- Apologies
- 2. The Motion (Pres./Hon. Treas.)

#### C. 9TH ANNUAL GENERAL MEETING

#### **AGENDA**

- Apologies
- 2. Minutes of the last Annual General Meeting (published in Newsletter 8, 2).
- 3. Presentation of the Society Lecture Prize.
  - 4. Annual Report and Discussion. (published in the latest Newsletter)
  - 5. Matters Arising from the Minutes of the last A.G.M.
  - 6. Financial Statement and Discussion (published in the latest Newsletter).
  - 7. Subscriptions.
  - 8. Election of Officers and 6 Council Members.
  - 9. Election of Hon. Auditor.
  - 10. General Business.

#### D. SUPPER



#### Operational Research Society of New Zealand (Inc.)

#### NINTH ANNUAL REPORT

#### FOR THE YEAR 1971 OCTOBER 1 TO 1972 SEPTEMBER 30

This was the first year in which the Annual Conference was held outside Wellington and this development gives an indication of the growth and of the growing maturity of the Society. It has been a year in which the Society has started to look outward rather than inwards and to ask how it can best contribute rather than ask what are the immediate prospects of reward.

This feeling is indicated in several ways. There appears to be a growing awareness of the professional role of the Society. This is illustrated well by the theme of the Conference ... communication between the OR user and practitioner. This theme was further emphasised by the conference after-dinner speech on the marketing of OR, a speech which caused many of us to think deeply about our attitude to the users and to the public. I believe that the speaker's suggestion that we design a 'Marketing Plan' for OR and for the Society is well worth taking up.

Another indication of an outward looking attitude is the movement towards contacts with bodies such as the National Productivity Centre where we believe that we can play an important role.

At its last meeting, Council resolved to make formal application to become a member body of the Royal Society of New Zealand thus forging a link with the scientific community. I am pleased to report that our application was successful.

I would hope that moves to further cooperation with the other side to our discipline-management, will also take place. Perhaps further links with local NZIM divisions might be considered.

One of the most severe problems faced by the Society is that of communication between branches and between members of Council who live away from Wellington. Council has hoped to make the Newsletter a forum for discussion and debate in order to relieve this problem. This channel has not been used as much as it could have been. In another approach to overcome this difficulty Council is recommending that next year finance be budgeted to allow Branch Chairmen outside Wellington to make two trips to Council meetings at the Society's expense. This will unfortunately make a marked impact on the Society's expenditure but it is felt to be necessary in order to accomplish closer integration.

As is customary, the remainder of this report is based upon the reports of the various council subcommittees and of the branch committees.

Membership. The membership of the Society on September 30 totalled 249 including 1 Honorary, 39 Full, 169 Associate, 39 Student members and one Collective member. They were divided among the branches as follows: Auckland 66, Canterbury 52, Wellington 117 and unattached 14. The total represents an increase of 22% over the total one year ago, once again a significant increase.

The Subcommittee has been asked by Council to report on the possibility of defining the criteria for Full Membership more satisfactorily.

Finance. The balance at September 30 was \$679, once again a reasonably satisfactory position; further details of the financial state will be found in the Financial Report which is included as an appendix.

International. Continued contact with IFORS was maintained. The membership of the Federation has grown and now includes USSR and Korea. Administrative and financial responsibility for IFORS International Abstracts was changed at the beginning of 1972 and this has led to problems and delays in distribution to our members.

Public Issues and Awareness. Contact has been made with the recently set up National Productivity Centre and the Society's offer of assistance was accepted. The form of such assistance is being investigated at present.

Education. A survey of OR courses to be offered in 1973 is being undertaken by the subcommittee and some thought has been given to the possibility of forecasting the requirement for OR personnel. There appear to be considerable practical difficulties in the latter task, however I believe that this is a particularly important duty of the Society.

National Events. The Eighth Annual Conference was held in Auckland on September 1st with the theme of Communication between the OR practitioner and the User. It was primarily organised by the Auckland Branch with the cooperation of the National Events Subcommittee and proved to be extremely successful. The Council wish to record their thanks and congratulations to the organising committee for this important milestone in the development of the Society.

A Postal survey of the membership is to be undertaken to discover from the members the sort of services that are wanted and the sort of new developments that members feel should take place.

<u>Publications</u>. Four issues of the Newsletter were produced during the year but despite requests from the Editor it is clear that it is not yet being fully used as an avenue for members' comments. This is to be deplored as communication between members who are widely scattered is required to knit the Society together as a professional group.

Constitutional. Requests for comments or suggestions for constitutional changes to be published and argued in the Newsletter have gone largely unheeded and only a small amendment to the financial structure will be recommended by Council at this time.

<u>Auckland Branch</u>. In addition to running several meetings, the branch took part in the organisation of the Annual Conference. It is with regret that we record the death of Mr. G.S. Holmes, one of the Auckland Committee members.

Canterbury Branch. Five evening meetings were held by the branch and an intensive membership drive succeeded in almost doubling membership during the year.

Wellington Branch. This was the first year's programme organised wholly by the branch. A full series of successful meetings was held.

Council. The subcommittee structure, set up by Council to assist it in particular areas has proved extremely successful. Some changes have been made in their function, and in some cases to their titles, to accommodate the increasing role that the branch committees have accepted in both organising meetings and in providing other facilities for members. The practice of having at the least a member from each Branch as well as a Council member has proved successful although the problems of communication (as always) have proved somewhat a problem.

Acknowledgements. I would like to thank the very active conveners and members of Council subcommittees and the branch committees for the great amount of work they have done during the year to develop the Society in the way that they have.

I would like to personally thank the Vice-President, Secretary and the other members of Council for making this year so rewarding for me as well as so successful for the Society.

#### G. A. Vignaux President

APPENDIX TO THE 9TH ANNUAL REPORT

#### COUNCIL

Six Council meetings have been held (to Sept 28) since the last A.G.M.

President:

Prof. G.A. Vignaux

Vice President:

Prof. L.F. Jackson B.K. Campbell

Hon. Sec: Hon. Treas:

Mr. A.H. Milkop

Council Members:

Dr. H. Barr

Prof. A.D. Brownlie (Canty Chairman, co-opted)

Mr. P.D. Bearsley

Mr. D.C. Cook (Wgton Chairman)

Mr. G.E. Dickinson Mr. L.E. O'Brien Mr. J.L. Scott

Mr. B.R. Slocombe (Akld Chairman, co-opted)

Hon. Auditor:

Constitutional

Mr. P.D. Hasselberg

#### COUNCIL SUBCOMMITTEES

Convener: Prof. G.A. Vignaux

Members: Prof. A.D. Brownlie, Mr. D.C.Cook, Prof. L.F. Jackson,

Mr. B.R. Slocombe.

#### Education

Convener: Dr. H. Barr

Members: Mr. J.A. Jordan, Mr. M.S. Rosser, Mr. J.B.C. Taylor,

Mr. C.W. Walker.

#### International Affairs

Convener: Prof. L.F. Jackson

Members: Mr. D.C. Cook, Dr. H.G. Daellenbach, Mr. J.A. Gibson

#### Membership

Convener: Mr. L.E. O'Brien

Members: Mr. M.G. Dodgson, Mr. T.A. Lusk, Mr. B.F. Ross-Murphy,

Miss. K.M. Watson.

#### National Events

Convener: Mr. P.D. Bearsley

Members: Mr. D.C. Cook, Mr. I.K. Hampton, Mr. T.A. Lusk,

Mr. P.J. McKenzie, Prof. G.A. Vignaux

#### Public Issues & Awareness

Convener: Mr. G.E. Dickinson

Members: Dr. R.R. Allan, Mr. A.T.G. McArthur, Mr. B.R. Slocombe

#### Publications

Convener: Mr. J.L. Scott

Editor N.Z. Operational Research: Mr. J.L. Scott

Members: Dr. H.G. Daellenbach, Mr. R.J. Elder, Mr. P.C. Gini.

#### BRANCH COMMITTEES

#### Wellington

Chairman: Mr. D.C. Cook Hon. Sec-Treas: Mr. P.C. Gini

Members: Dr. R.R. Allan, Mr. A.H. Milkop, Mr. C.W. Walker,

Miss K.M. Watson

#### Auckland

Chairman: Mr. B.R. Slocombe Hon. Sec: Mr. M.G. Dodgson Hon. Treas: Mr. I.K. Hampton

Members: Mr. R.J. Elder, Mr. J.A. Gibson, Mr. G.S. Holmes (deceased),

Mr. C.D. Johanson, Mr. K.C. Nutsford, Mr. M.S. Rosser.

#### Canterbury (to 72 July 27)

Chairman: Prof. A.D. Brownlie
Hon. Sec-Treas: Dr. H.G. Daellenbach

Members: Mr. T.A. Lusk, Mr. A.T.G. McArthur, Mr. J.B.C. Taylor

#### Canterbury (from 72 Jul. 27)

Chairman: Dr. H.G. Daellenbach Hon. Sec-Treas: Mr.J.A. George

Members: Mr. R.A. Clements, Mr. T.A. Lusk, Mr. C. Shamway,

Mr. J.B.C. Taylor

#### OPERATIONAL RESEARCH SOCIETY OF NEW ZEALAND (INC)

#### LIST OF MEMBERS

#### As at October 1 1972

#### HONORARY MEMBER

Prof R.E. Bellman University of Southern California U.S.A.

#### FULL MEMBERS

DR R.R. ALLAN MR A.M. ANDERSON MR I.P. BIELESKI MR G.J. BOWLER MR B.K. CAMPBELL MR B.S. CAMPBELL DR R.W. CARTWRIGHT MR E.A. CHRISTIANSEN MR D.C. COOK MR F.A. COULTER DR H.G. DAELLENBACH DR J.H. DARWIN MR I.D. DICK MR P.J. DOHRN MR L. EVANS MR R.N. FORD	Beca, Carter, Hollings, Ferner A.M.Anderson & Associates IBM BP (NZ) Applied Maths Division BP (NZ) Massey University Philips Electrical Industries N.Z. Electricity Dept. N.Z. Forest Products University of Canterbury Applied Maths Division Mines Dept. P-E. Consulting Group Victoria University A.C.T.	Wellington Dunedin Wellington "" "" P.North Wellington "Tokoroa Christchurch Wellington "" England Wellington				
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MR J.A. GIBSON	P-E Consulting Group	Auckland				
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University of Auckland
University of Auckland
University of Auckland
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Motor Specialties Industries

SHADBOLT

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PRO:	F. D. VERE-JONES	Victoria University		11
MR (	C.W. WALKER	Shell Oil	ž.	11
MR	A.R. WALLACE	Crop Research Division DSIR		Christchurch
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	T. WINIATA	•		Overseas
SEN	. SGT. P.C. WOOD	Police National Headquarters		Wellington
MR I	M.F. WRIGHT	N.Z.Breweries		11
MR '	Y. YAGYU	Applied Maths Division		11
MR	S.P. YOUNG	Social Welfare Dept.		11
	V.A.W. YOUL	Registered Architect		Auckland
MR V	w. Younger	Fisher & Paykel Ltd.		78

#### STUDENT MEMBERS

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MR E.J. BAKER	Teachers College		Christchurch
MR C.G. BEATH	University of Canterbury	*	11
MR B.R. BENSEMAN	11		<b>11</b>
MR J.F. BOSHIER	11		11
MR P.M. CASHIN	tt .		**
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MISS S.K. CHEONG	University of Canterbury		Christchurch
MR G.A. COX	11		11
MR A.D. CRAIG	2 11		11
MR D.C. DALTON	Victoria University		Wellington
MR D.H. GARDINER	Auckland University		Auckland
MR R.W. GIBBARD	University of Canterbury		Christchurch
MR D.J. GILBERT	Victoria University		Wellington
MR D.J. GREEN	University of Canterbury		Canterbury
MR C.J. HARDLEY	Auckland University		Auckland
MR P. KEAR	Victoria University		Wellington
MISS C.S. KUM	University of Canterbury		Christchurch
MR C.G. LEWIS	Victoria University		Wellington
MR I.C. LIEWERT	University of Canterbury		Christchurch
MR H.A. LIK	11		11
MR E.L. LOO	11		11
MR J.F. LOWINGER	11		11
MR T.W. MARKS	11	4	11
MISS S.G. MARRIOTT	11		11
MR M.R. MAYSON	11		11

Μ	R I.S. McINTOSH	I	University	of Otago		Dunedin
Μ	R R.J. McMILLAN	1	University	of Canterbury	(	Christchurch
M	R S.F. MILLER		Auckland U	niversity		Auckland
M	R J.J. MULLIGAN	1	University	of Canterbury	(	Christchurch
Μ	R R. PODMORE		11			
M	R A.B. ROBSON		11			**
, M	R J.R. ROGAN		University	of Auckland		Auckland
M	R P.A. SERGENT-	•				
	SHADBOLT		11			11
М	R B.M. SHARP		Lincoln Col	llege	J	Lincoln
М	R R.J. SIMPSON		University	of Canterbury	(	Christchurch
M	R D.A. STOTT		rt .			11
M	ISS L.J. STRETT	ON	University	of Auckland		Auckland
M	R L.I. TEO		University	of Canterbury	(	Christchurch
M	R P.H. TRAC		11			11
М	R M.J. TURNBULL	ı			Ţ	J.K.
М	R L.S. WAH		University	of Canterbury	(	Christchurch
M	R D.R. WOOD		M.O.W.		7	Wellington

#### COLLECTIVE MEMBER

THE NEW ZEALAND INSTITUTE OF MANAGEMENT WELLINGTON DIVISION (INC)

PLEASE SEND ANY CORRECTIONS OR AMPLIFICATIONS TO THE MEMBERSHIP SUB COMMITTEE, P. O. BOX 904, WELLINGTON.

#### MEETINGS 1971 - 72

#### NATIONAL CONFERENCE

J. P. Heylen

Theme: 'Communication between the OR user and the OR Practitioner'

72 Sept 1 G. A. Vignaux 'Presidential Remarks' R. G. Evans 'OR Exercise or Trivia?' R. J. Mortleman .'Computer Simulation of the Woolsale Roster' R.T. Andrew 'Interactive Computer Based Linear Program System'. K. C. Nutsford A Game with Simulation' M.S. Rosser 'A Three-way Communication Problem in OR Education' Panel Discussion 'Communication for OR' B.R. Slocombe (Chairman) F. A. Coulter M. C. Forster T. B. Nayler P.J.D. Stanes

'Marketing Operational Research'

#### AUCKLAND BRANCH

71 Nov 9 Panel: 'Education for OR: Past, Present and Future'. I. Turner M. S. Rosser R. Carter T. B. Naylor 'OR through the eyes of an Industrial Dec. 13 B. Brookes Relations Man' 72 Mar 23 A. Scott 'Multiple Regression Theory' D. Simons 'Multiple Regression in the timber processing industry' Jun 27 H. B. Powell 'Application of PERT to refitting Naval Vessels' Jul 27 P. J. D. Stanes 'Communications for OR' CANTERBURY BRANCH 71 Nov 8 P. Shannon 'OR applied to artificial breeding' 72 Mar 29 Prof. H. McCallion 'An adaptive system for materials control and Machine Shop Scheduling' Jun 7 T. A. Lusk 'Management of hydro reservoirs in the N.Z. power system' July 27 (Annual general Meeting.) 'Jobsand batch Scheduling' W. S. Yn M. P. Ong 'Queuing Simulation' D. Stott 'Training Schedules for Student Nurses' WELLINGTON BRANCH 71 Oct 11 'Simulation Working for Management . Dr. M. Jameson

17 OCC 17	Dr. H. Jameson	Simulation working for Management .	
		with Reference to ICL PROSPER'	
Oct 26	Y.Yagyu	'Simulation of a Computer Operating	
		System'	
Nov 11	A. Stratton	'OR in the Public Service'	
<b>7</b> 2 Mar 29	(formation of Wellingt	con Branch and AGM of Society)	
	G. A. Vignaux	'What is the Society for?'	
May 31	M. J. Tarrant	'Automatic Stock Control for Packaged	
•		Goods'	
Jun 27	Dr. P. Rielly	'Management involvement in OR techniques	:
	•	Container Simulation example'	
July 24	(joint meeting with Wo	•	
•		'Simulation Part 1'	
	G. A. Vignaux		
	P. Kear		
Aug 24	(joint meeting with Wo	ork-Study Society)	
•	L. E. O'Brien	'Simulation - Part 2 : Working Session'	
	G. A. Vignaux		
	N. Gordon		
Sept 20	J. de Verrier	'The Role of Simulation in Management'	
Oct 24	J. Heylen	'Marketing Operational Research'	
	<b>J</b> — <del>-</del>	0 . [	



## Operational Research Society of New Zealand (Inc.)

#### STATEMENT OF RECEIPTS AND PAYMENTS FOR YEAR ENDED 30/9/72

RECEIPTS			71/72		<u>70/71</u>
Balance at BNZ @ less cheques not		500 <b>.</b> 22 <b>-14.6</b> 6	485.56	420.18 <u>-45.05</u>	<b>375.</b> 13
Cash on hand @ 1,	/10/71		7.59		1.82
Subscription inco	ome		794.50		730.00
International Abs	stracts (51 subs)		127.50		-
Rotorua/Bay of P.	lenty Branch Balance		50.31		-
Bellman Dinner &	Lunch Receipts		-		500.10
Cocktail Party Re	eceipts		-		42.00
Interest			15.12		10.87
Stratton Dinner			27.80		-
TOTAL REG	CEIPTS		1508.38		1659.92
Note: subscription	ons 71/72 = 212; 70/71	= 166.			
	49; Wgtn. 99; Chch. 36				
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PAYMENTS			71/72		70/71
A. Secretarial:	Annual Report Copying Postage	44.00 35.35 16.74			
	Addressograph plate char Other	rges 15.33 16.50	127.92		60.93
B. Treasurer:	Copying	10.48			
	Postage Other	15.57 7.42	33.47		19.67
C. Public Issues			15.00		25.00
		-	1,,,,,,		
D. Publications:	Copying Postage Paper	35.00 35.53 22.27	92.80		35.61
E. National Even	ts: Copying Other	12.00 <u>14.18</u>	26.18		67.40
F. International	:Subscription Abstracts	22.22 91.72	113.94		29.50
G. Membership:	Subscription Other	25.00 5.07	30.07		60.00
H. Presidential:		- 1 <del>2</del> ,	-		45.50
I. Education:			5.60		-
J. Miscellaneous	:Stratton Dinner Bellman Dinner & Lunch	27 <b>.</b> 50	27.50		580 <b>.</b> 70

Note (1) Outstanding Subscriptions 71/72 \$ 228.00 (\$ 45 owed for previous years)

Note (2) Outstanding liability for Abstracts approximately \$ 120.

( A.H. Milkop)

I hereby certify that I have examined the books and accounts of the Operational Research Society of New Zealand (Inc.). The above statement is in my opinion a true and accurate account of the transactions of the Society.

11) Harriburg.

(P.D. Hasselberg, A.C.A.) Hon. Auditor